range of inlet flow angles as might inevitably be experienced as the rotating profiles pass through nozzle wakes and floor/ceiling secondary flow regions. Special attention has also been directed at reducing the secondary losses in rotating blades.

All the HP rotating blades have integral tip shrouding. The blades are assembled on to the rotor by applying sufficient torsional pretwist to ensure that the contact surfaces of the shrouding remain in uniform circumferential contact at speed (Figure 5).

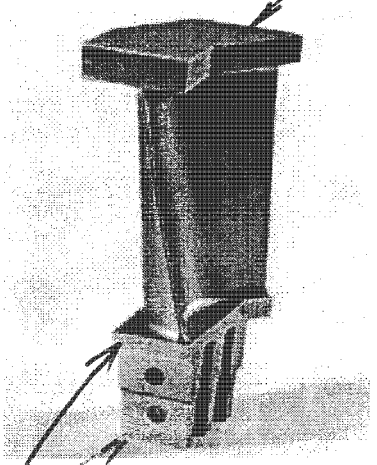

Figure 4 - Typical Rotating Blade with Integral Shroud

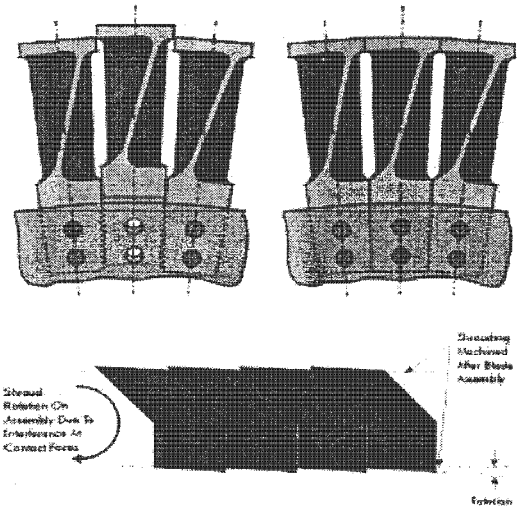

Figure 5 - Installation of Rotating Blades with Integral Shrouds

Circumferential ribs are machined on the outer surface of the tip shrouding after the blades have been assembled on the rotor. These ribs co-operate with the stationary sealing fins mounted on extensions of the diaphragm outer rings to form highly efficient, interleaved labyrinth type tip seals. The inner surface of the integral blade tip shrouding is machined conically during the course of blade manufacture to provide a smooth outer boundary to the blade path which reduces flow disturbance in the tip region.

Each of the proposed HP rotating blades is machined from a single piece of alloy steel bar and includes the following features:

- robust pinned root fastening with forked prongs that fit into circumferential slots machined in the disc head, secured by axial locking pins; the pins are assembled with a light drive fit into perfectly matched reamed holes

INTERMOUNTAIN HP INNER CASING MODULE

Lifting beam carrying rotor and inner casing module

IP7011446

Phong Do - Intermountain 2 Inner Shell Being Bored 24th Oct '01 Pa240012.jpg

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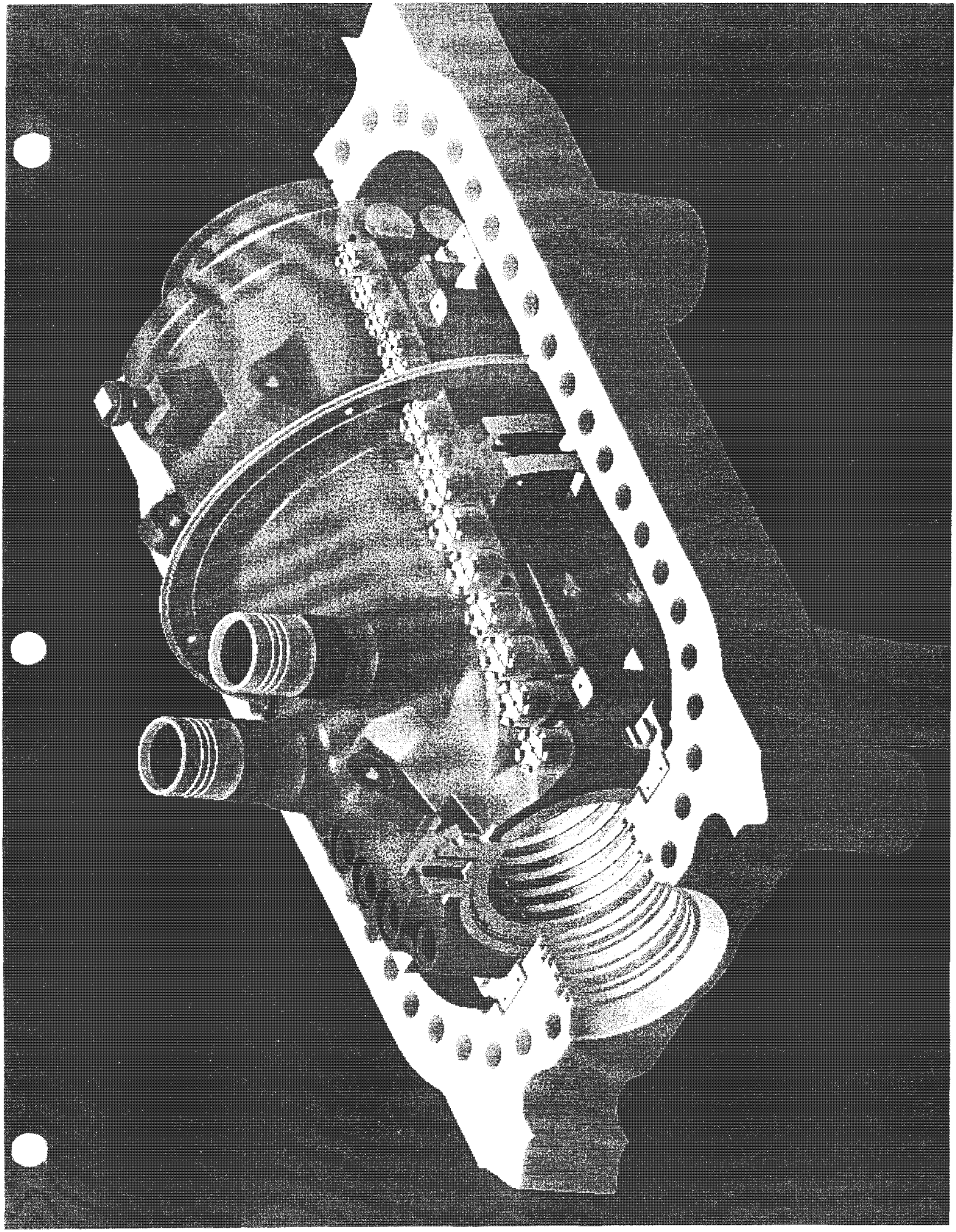

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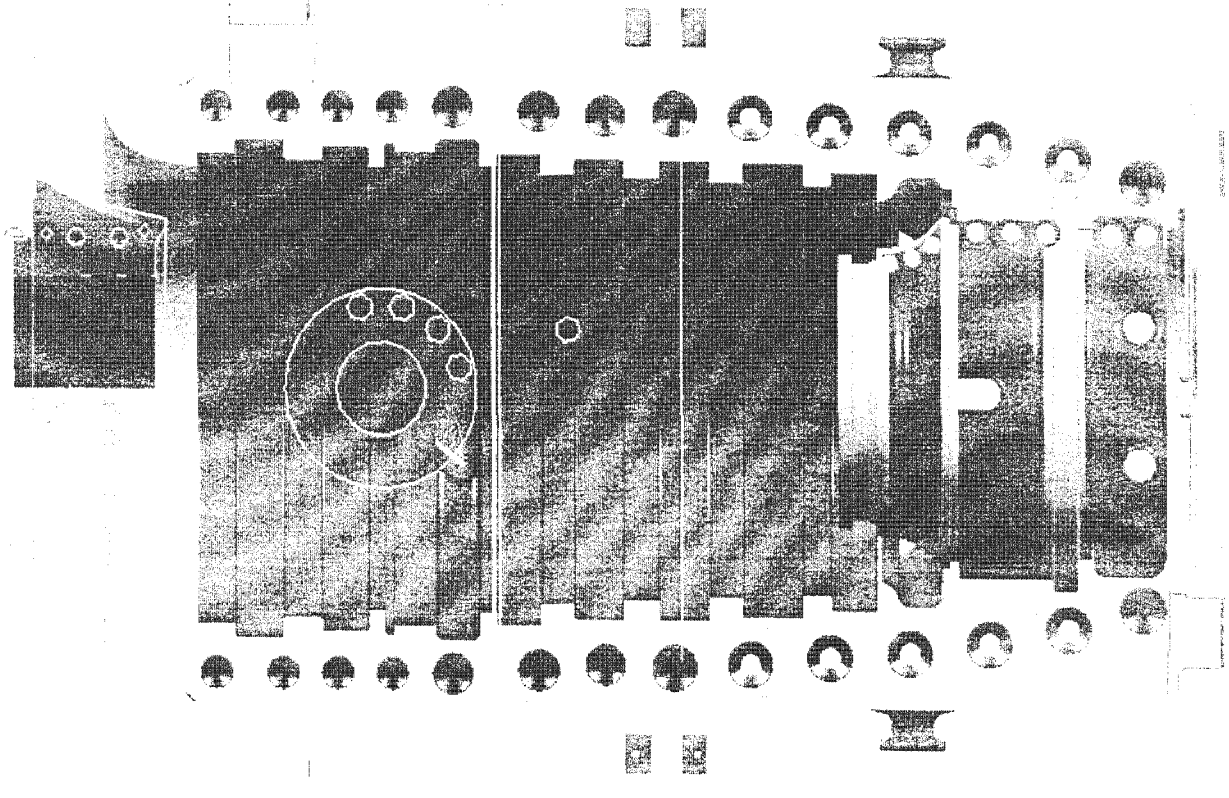
INTERMOUNTAIN HP INNER CASING MODULE

Inner casing, inlet gland and exhaust gland with Intermountain Farodata



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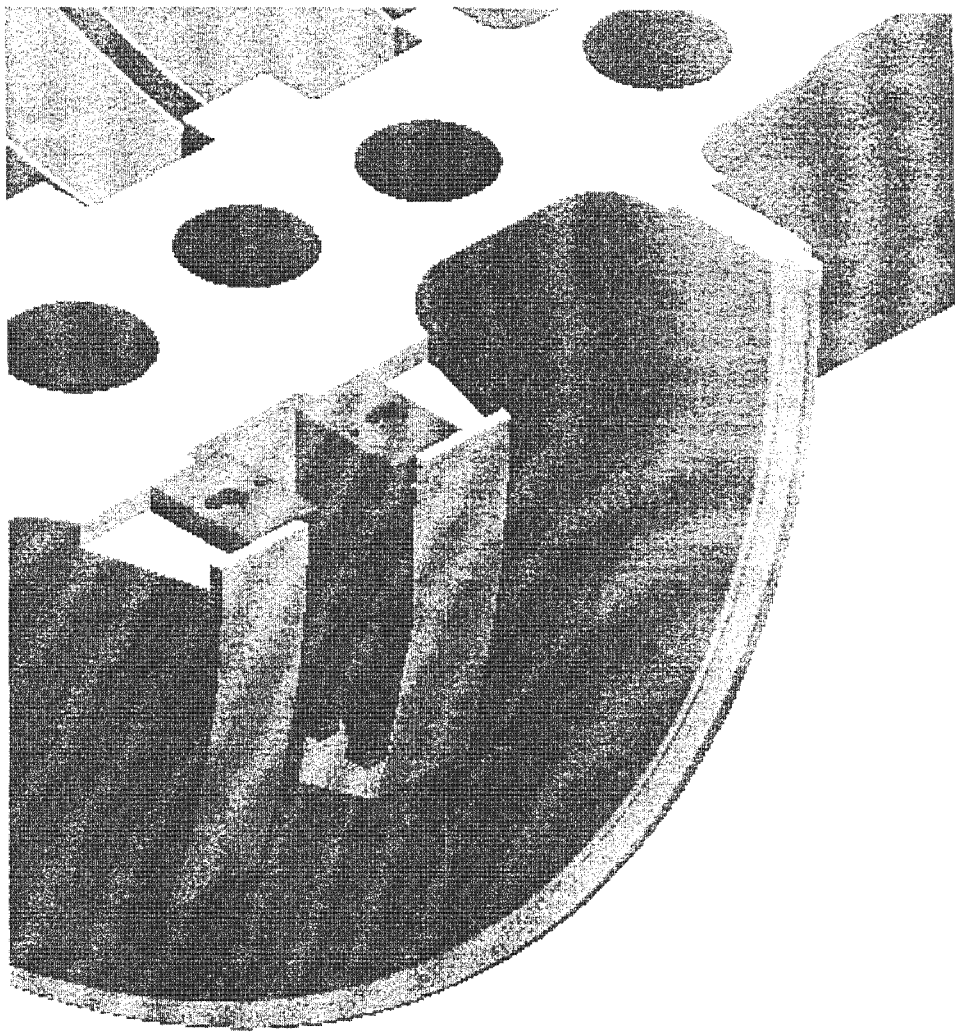
INTERMOUNTAIN HP INNER CASING MODULE

Inner casing axial packers (8 off, 4 top half and 4 bottom) and integral machined baffle



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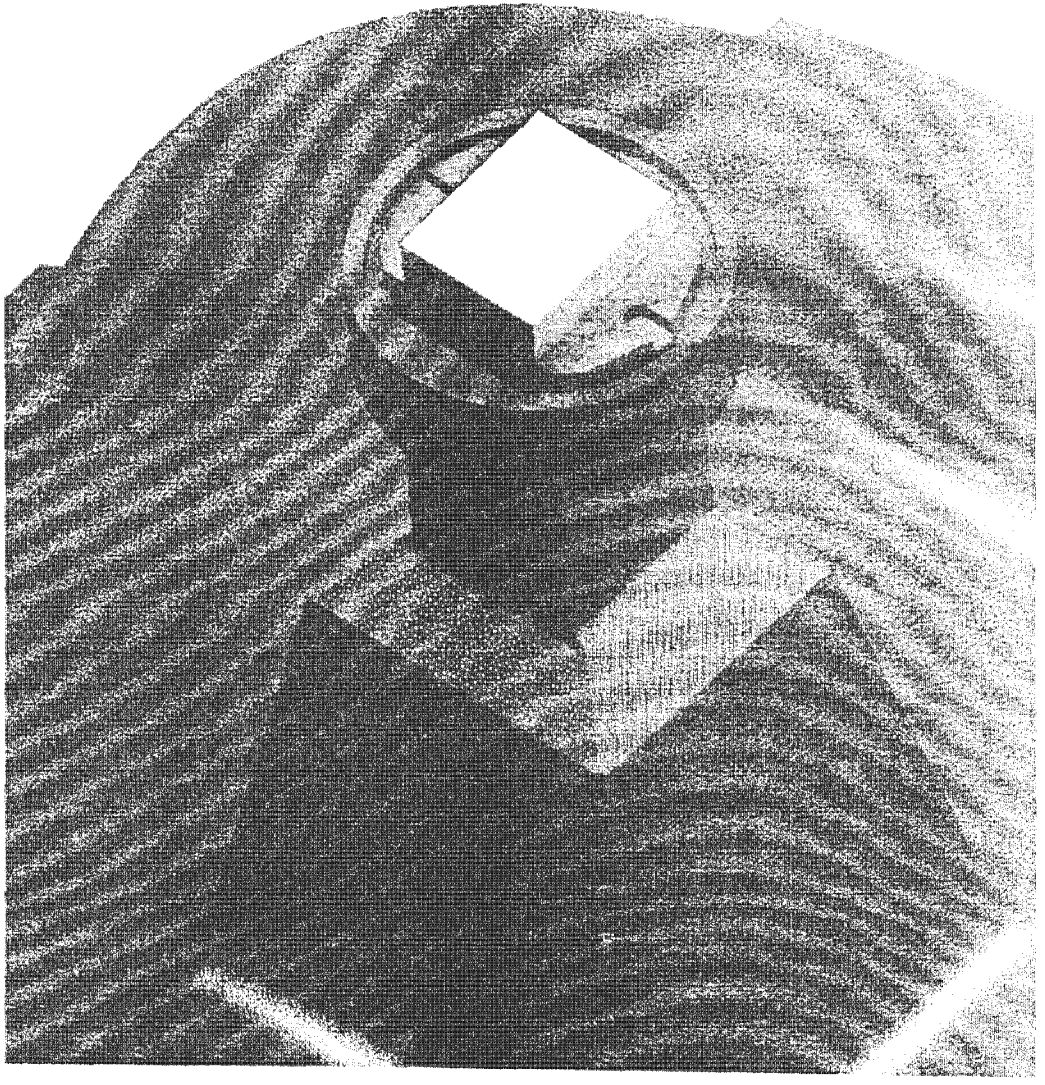
INTERMOUNTAIN HP INNER CASING MODULE

Inner casing top front transverse packers and outer casing insert



IP7011451

INTERMOUNTAIN HP INNER CASING MODULE

Inner casing bottom front transverse packers and heater connection

INTERMOUNTAIN HP INNER CASING MODULE

Inner casing top and bottom rear transverse packers

IP7011453